STATE OF ILLINOIS

ILLINOIS COMMERCE COMMISSION

Illinois Commerce Commission On Its Own Motion	)	
Consideration of the federal standard on interconnection in Section 1254 of the Energy Policy Act of 2005	)	06-0525

COMMENTS OF COMMONWEALTH EDISON COMPANY

Commonwealth Edison Company ("ComEd") submits these comments on the proposed "final" interconnection rules included as Attachment B to the Commission Order of March 26, 2008, in this docket. ComEd recognizes that the proposed rules emanate from a recommendation issued by Staff after an extended workshop process involving the State's major electric utilities and representatives of the distributed generation community. ComEd sincerely appreciates the dedication and hard work of Staff in this process and believes that, by and large, the proposed rules strike a reasonable accommodation between the needs of electric utilities to manage, operate, and maintain their distribution systems, safely and reliably, for the benefit of all of their electric service customers and the needs of customers who wish to interconnect small generators to run in parallel with the electric grid. These comments take issue with only a few aspects of those proposed rules and should not be taken as an expression of dissatisfaction with the efforts of Staff in this matter.

I. The Commission's Rules Should Not Include Detailed Procedures for Processing Interconnection Applications.

By way of background, ComEd would note that, when the parties began the workshop process, it was understood by all participants that the issue of how any

consensus detailed procedures would be "memorialized" – either embedded in a detailed Commission rule, contained in individual utility tariff provisions, or published by the individual utilities on their web sites – was unresolved, but would be addressed by the workshop after its work on the details of the technical standard applicable to interconnection arrangements for small generators and on whether any consensus could be reached on a set of reasonably detailed procedures that should be applicable to state-jurisdictional interconnection applications. Going into the process, it was the utilities' position that there should be no single set of reasonable procedures since differences among the State's utilities would be justified in light of their unique situations. From ComEd's perspective, the process was not unlike the workshops that took place several years ago to accommodate and implement retail choice – to address the procedural issues surrounding the submission to and handling of supplier change requests by electric utilities. (Although any arguments for mandating uniformity among the utilities are even weaker in the case of interconnection, where the utilities, for the most part, are dealing with customers with service locations in one utility's service territory. I.e., uniformity among utility practices means nothing to the customers.)

In this case, it was initially understood by the workshop participants that the issue of how any consensus procedures should be memorialized (i.e., rule, tariff, or web site) would be addressed by the workshop after it dealt with the detailed standards and procedures – largely because parties views on the manner of memorialization might be affected by the nature of the consensus reached on the standards and procedures themselves. In the end, however, the workshop never did address the memorialization issue.

Staff's report of March 11, 2008, on the emergency rule in this proceeding seems to indicate why that happened. It notes that, after this docket was well under way, the General Assembly passed "net metering" legislation (P.A. 95-420, creating section 16-107.5 of the Public Utilities Act) that requires the Commission to adopt standards for interconnection applicable to net metering and that it would be logical for the Commission to adopt standards applicable to all small generation interconnection, not just those in net metering situations.

ComEd submits, however, that including detailed procedures in Commission rules is neither compelled by the law nor consistent with the manner in which the Commission regulates other electric utility practices.

A. The Commission is not required to specify detailed procedures in rules.

Clearly, as implied by Staff's report, there is no general legislative requirement for the Commission to adopt rules containing detail procedures for the processing of interconnection applications generally. *At most*, the requirement applies to applications for interconnection in net metering contexts. However, a careful reading of the legislation reveals that that is not the case and that, in fact, Staff's assumption that the legislation requires the Commission to incorporate detailed procedures into rules covering interconnection in net metering situations is incorrect.

The statute provides, in relevant part:

> (h) Within 120 days after the effective date of this amendatory Act of the 95th General Assembly, the Commission shall establish standards for net metering and, *if the Commission has not already acted on its own initiative*, standards for the interconnection of eligible renewable generating equipment to the utility system. The interconnection standards shall address any procedural barriers, delays, and administrative costs associated with the interconnection of customer-generation while ensuring

> the safety and reliability of the units and the electric utility system. The Commission shall consider the Institute of Electrical and Electronics Engineers (IEEE) Standard 1547 and the issues of (i) reasonable and fair fees and costs, (ii) clear timelines for major milestones in the interconnection process, (iii) nondiscriminatory terms of agreement, and (iv) any best practices for interconnection of distributed generation. (Emphasis added.)

It is important to note that the Commission has already implied that its obligations under the law with respect to interconnection standards have already been satisfied. If there were a requirement to adopt new rules, the Commission would have had to have acted within 120 days of the enactment of the law (August 24, 2007). In its second interim order in this docket, dated November 20, 2007, the Commission effectively noted that, in commencing *this* proceeding and in adopting IEEE Standard 1547 as the technical standard applicable to small generator interconnections prior to the enactment of the net metering law, it had "already acted on its own initiative", thus obviating the need to adopt further rules on the interconnection of "eligible" net metering generation.

Moreover, even if the law is interpreted as requiring the Commission to adopt additional standards, the words themselves do not require that the Commission include mandatory detailed procedures in its rules. While the law does specify what the Commission must *consider*, a particular result is not compelled. Certainly, in adopting IEEE 1547 as the technical standard, the Commission did much to address potential delays, costs, and safety and reliability issues that may have been unresolved in the absence of such a standard. Certainly, such a requirement would be satisfied by a rule specifying that utilities will be held to a "just and reasonable" *standard* in their handling of net metering interconnection applications and requiring utilities to post their procedures on their web sites for easy public access.

B. Historically, the Commission has not prescribed detailed procedures in its rules.

The Commission's proposed rules include detailed procedures to which the utilities must adhere in processing applications for interconnection. This is a rarity in Commission regulation, which traditionally permits utilities to manage the details of their business of providing electric service to customers in this State, but holds them responsible for the results. For example, there are no Commission detailed rules dictating how electric utilities must process requests for basic electric service, but it is understood that they must not act unjustly or unreasonably in that regard.

Similarly, ComEd concedes that it must act justly and reasonably in processing requests for interconnection, just as it must do in processing requests for electric service. However, the details of how the utilities process requests for interconnection should be left to the utilities to manage in the same way that utilities are left to manage the details of processing requests for electric service. In both cases, utilities have a practical need to accommodate such requests in a manner that considers not only the needs of the individual applicants, but also the utilities' responsibility to provide electric service to customers in general.

In fact, because of the complications involved with the connection of generation facilities to the electric distribution system, it is even more important that electric utilities be permitted to manage that process. It must be remembered that the electric grid is an extremely complicated mechanism that was never designed, at the distribution level, to easily accommodate the connection of generation facilities like it was for the connection of load customers. Characteristics relevant to the connection of generation to the grid

vary greatly by the location of the proposed interconnection point.[1] Therefore, in the vast majority of cases, processing requests for interconnection, of necessity, will require more scrutiny and analysis than processing requests for basic electric service.

It is interesting to note that there are no Commission rules whatsoever regarding the details of how a utility should process of requests to switch to a competitive electric supplier. As important as procedures are in this very important area (including timing, required forms, and notifications), after workshops with industry representatives, the procedures were effectively memorialized, in ComEd's case, by the publication of the RES Handbook on ComEd's web site. That Handbook can be easily updated and modified to reflect the changing needs of the industry and improvements to the processes that have been learned over time. This kind of beneficial flexibility is absent if procedures are "hard-coded" in Commission rules.

After reviewing the propose final rule with its detailed procedures, fees, timelines, and form agreements, ComEd takes no issue with much of the final product *per se*; however, ComEd is concerned putting so much procedural detail into a Commission rule significantly risks putting electric utilities into out-of-compliance (violation) status virtually from the beginning – both because of the ramp-up time needed to re-configure organizations and processes to comply with the detailed requirements and in situations in which the exigencies of the business justify deviation from those details – e.g., the need to devote resources to emergency storm restoration efforts. And while some might argue that the utility could simply ask for a waiver in these situations, that process can be an extended one and a waiver cannot justify deviation from a Commission rule until *after* it

[1] The Commission's proposed rules acknowledge these relevant technical characteristics in the Levels and technical screens incorporated into the rules.

is granted, making the waiver process completely impracticable in the case of emergencies.

In this light, ComEd submits that the Commission need not and should not conclude that each detail of the processing of applications for interconnection must be done only one way.[2] Instead, as noted above, the Commission should give serious consideration to enacting a general rule requiring that utilities act justly and reasonably with respect to applications for interconnection and that they make their procedures publicly available. At most, the Commission should configure its final interconnection rule as it did its emergency rule – providing that the detailed procedures contained therein are not mandated but rather are a "safe harbor" for utilities that can reasonably incorporate them into their overall business of providing regulated electric service. The Commission would have jurisdiction to adjudicate any complaint alleging unreasonable behavior just as it does today with respect to other routine aspects of a utility's regulated operations.

With that in mind, ComEd will now address a few specific items in the rules with which it has concerns.

II. The Commission Should Not Require Utilities to "Indemnify" Interconnectors.

The Commission's required form interconnection agreements contain mutual indemnification provisions – each party to indemnify the other from all damages and

[2] For example, why must utility respond to a Level 3 application in 10 days (proposed rule section 466.110(a)(2)), and not in 11 days, especially if the allocation of resources necessary to conduct the utility's primary business (the provision of electric service) reasonably dictates otherwise? It goes without saying that the specification of detailed processes will virtually eliminate more favorable treatment (e.g., a quicker response time) that might have otherwise been provided to an interconnection applicant, as utilities attempt to standardize around the requirements.

expenses resulting from any third party claim arising out of or based upon the indemnifying party's (a) negligence or willful misconduct or (b) breach of the agreement, except to the extent caused by the indemnified party's gross negligence or willful misconduct. It is clearly appropriate that the interconnection agreements include a requirement for interconnectors to indemnify utilities in those circumstances.

By hooking their generators to the electric grid, interconnectors are introducing a new source of risk to the utilities' provision of regulated electric service – risk to other customers served on the same circuit, risk to utility company employees, and risk to the operation of the electric grid itself – risk substantially in excess of the risk posed by any ordinary electric service (load) customer. To mitigate the potential cost to utility operations and to other electric customers that this risk poses, interconnectors should be required to indemnify electric utilities in appropriate circumstances. The opposite, however, is not the case.

ComEd's liability to its customers is already defined by the Public Utility Act, in part, and by other aspects of Illinois law. It would simply be bad public policy to favor interconnectors over ComEd's other customers by increasing ComEd's liability to interconnectors through an indemnity clause. Such increased exposure will potentially increase the cost of electric service, a cost that will have to be borne by ComEd's other customers. This would be, in reality, a subsidy to interconnectors, paid for by other electric customers. This is singularly inappropriate when it is the interconnectors who are themselves introducing increased risk into the operation of the electric grid.

In summary, while it is appropriate to require interconnectors to indemnify utilities in the indicated instances, the liability of utilities to interconnectors should be left

to existing law consistent with the utilities' liability to their other electric service customers.

III. The Commission Should Not Prohibit Utilities from Requiring Interconnectors to Maintain a More Stringent Power Factor Range than Load Customers when the Interconnectors are Exporting Electricity to the Grid.

The Commission's required form Level 2-Level 4 interconnection agreement contains the following prohibition:

> The EDC shall not specify a power factor range that is more stringent than the power factor range load customers of comparable size must maintain in order to avoid reactive demand charges. (Paragraph 1.9.1.)

While ComEd does not object to the application of such a prohibition when the interconnector is taking power from the grid, it is not appropriate when the generator is exporting power to the electric grid.

"Power factor" refers to the ratio of Real (kilowatts) to Apparent Power (kilovolt-amperes). Apparent Power is the product of the electrical current flowing through the delivery system multiplied by the delivery system voltage (Reactive Power). The delivery system must be constructed to accommodate the Apparent Power used by delivery customers. If the Real and Apparent Power are the same, the power factor is "unity" and the utility doesn't incur the cost of accommodating or supplying additional Reactive Power (usually by installing capacitors at appropriate points on the distribution system or through the installation of equipment with greater capacity than would be required with unity power factor). Load customers using the ComEd delivery system (potentially different for other utilities) are required to maintain a power factor of at least 85% and the electric grid is constructed to accommodate up to a 15% deviation from

unity. The cost of this Reactive Power capacity is included in customers' delivery service charges. If a ComEd customer load has a load factor less than 85%, charges for additional Reactive Power are assessed.

When an interconnector is acting as a load customer and drawing energy from the electric grid, it is appropriate to hold the customer to the power factor requirements applicable to other customers – at least 85% – because the distribution charges paid by the interconnector are paying for the cost of the necessary capacitance. However, when the generator is exporting power to the grid, it should be required to maintain a higher power factor because it is not paying for any Reactive Power supply when it is exporting power. Otherwise, the additional Reactive Power supply necessitated by the generator's operation must be paid for by other electric customers; and that is not appropriate.

It is important to note that the FERC Small Generator (under 20MW) Interconnection Agreement requires a higher power factor:

1.8 Reactive Power

1.8.1 The Interconnection Customer shall design its Small Generating Facility to maintain a composite power delivery at continuous rated power output at the Point of Interconnection at a power factor within the range of 0.95 leading to 0.95 lagging, unless the Transmission Provider has established different requirements that apply to all similarly situated generators in the control area on a comparable basis. The requirements of this paragraph shall not apply to wind generators.

In this light, ComEd proposes that the following language be permitted to be included in interconnection agreements:

> The EDC shall not specify a power factor range, applicable to situations in which the facility is drawing electricity from the grid, that is more stringent than the power factor range load customers of comparable size must maintain in order to avoid reactive demand charges. However, the EDC may specify a more stringent power factor applicable to a situation in which the facility is exporting electricity to the electric grid.

IV. The Interconnector Should Be Required to Give the Utility 30 Business Days Notice of the Commissioning Test so that the EDC Can Arrange for Witness Testing.

The current proposed rule would permit a utility to require up to 15 business days notice of a commissioning test so that the utility can arrange to witness the test if it so chooses. ComEd is mindful that 15 business days is in fact 3 calendar weeks. Nonetheless, at this time, ComEd does not have personnel dedicated to the witness testing of interconnection arrangements. Testing personnel responsible for this work are also responsible for similar functions with respect to the operation and maintenance of the electric transmission and distribution system. The work is scheduled under a rigorous Work Management Process that requires advance planning and mandates exceptional approval for orders for work that are generated later than five weeks in advance of the time that the work is to be performed. Various other emergencies create demands on personnel time – e.g., storm restoration activities, operational event investigations, resolution of substation maintenance issues, and substation site restoration, etc. Permitting the utility to require up to 30 business days notice of a commissioning test would permit ComEd to work this activity into its current work processes allowing its personnel to meet the needs of interconnection applicants on the same basis on which they work to meet the needs of regular electric customers as well.

V. Minor "Editorial" Corrections.

Following are what ComEd believes to be minor suggested textual changes that clarify the language or otherwise correct inadvertent errors that were involved with the conversion of text from Maryland documents to the draft at hand.

A. Sections 466.90(a)(1) and 466.100(a)(1).

For interconnection of a proposed distributed generation facility to a radial distribution circuit, the total distributed generation connected to the distribution ~~circuit~~ line section, including the proposed distributed generation facility, may not exceed 50% of the minimum load normally supplied by the distribution ~~circuit~~ line section. If minimum load values for the distribution circuit are not available, then the total generation on the distribution ~~circuit~~, including the proposed distribution generation facility, may not exceed 15% of the maximum load normally supplied by the distribution ~~circuit~~ line section.

Explanation: The term circuit is not defined but "line section" is. This just provides clarification.

B. Section 466.90(a)(2).

~~For interconnection of a proposed distributed generation facility to the load side of spot network protectors, the proposed distributed generation facility shall utilize an inverter based equipment package. The interconnection equipment that the applicant proposes to use for the distributed generation facility shall be lab certified.~~ When aggregated with other generation, the interconnection equipment shall not exceed 5% of the spot network's maximum load or 50 kVa, whichever is less.

Explanation: Level 1 equipment is by definition inverter-based and lab certified. Deletion of this language should eliminate potential confusion on that point.

C. Section 466.100(a)(3).

The proposed distributed generation facility, in aggregation with other generation on the distribution circuit, may not contribute more than ~~25%~~ 10% to the distribution circuit's maximum fault current at the point on the primary line nearest the point of interconnection.

Explanation: This appears to be a typographic error. The Maryland documents and FERC standards discussed in the workshop specified 10% and the issue did not appear to be in disputed.

D. Appendix C: Level 2, 3, 4 Standard Agreement.

2.1.1 **** If the EDC performs a witness test at a time that is not concurrent with the commissioning test, it shall contact the interconnection customer to

schedule the witness test at a mutually agreeable time within 10 business days after the scheduled commissioning test designated on ~~this~~ the application.

Explanation: Clarification. This is the Interconnection Agreement, not the Application.

Respectfully submitted,
COMMONWEALTH EDISON COMPANY

By: 

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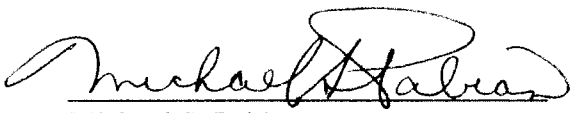
DATED: April 25, 2008

Certificate of Service

I, Michael S. Pabian, hereby certify that I have served a copy of the foregoing Comments of Commonwealth Edison Company on the parties by electronic mail, this 25th day of April, 2008.



Michael S. Pabian

STATE OF ILLINOIS)
) SS.
COUNTY OF DUPAGE)

VERIFICATION

I, David F. Geraghty, being first duly sworn, state that I have read the foregoing Comments of Commonwealth Edison Company and that the facts stated therein are true and correct to the best of my knowledge and belief.

David F. Geraghty

Subscribed and sworn to before
me this 25th day of April, 2008.

Notary Public

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NOTARY PUBLIC, STATE OF ILLINOIS
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